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~~9/196161~~ 9/196161

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FILE 'HOME' ENTERED AT 09:51:13 ON 15 MAR 2001

=> file agricola uspatfull wpids japio

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FILE 'AGRICOLA' ENTERED AT 09:51:31 ON 15 MAR 2001

FILE 'USPATFULL' ENTERED AT 09:51:31 ON 15 MAR 2001  
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=> e sin min yoke/au

E1	1	SIN M Y A/AU
E2	1	SIN MIKHAIL ALEXANDROVICH/AU
E3	0 -->	SIN MIN YOKE/AU
E4	1	SIN N/AU
E5	1	SIN N K/AU
E6	3	SIN O/AU
E7	1	SIN O K/AU
E8	1	SIN P/AU
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E10	1	SIN P N/AU
E11	1	SIN P S/AU
E12	1	SIN PANG L/AU

=> e min sin yoke/au

E1	2	MIN SHIYUN SHIYUN/AU
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=> e lam toong jin/au

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E4	2	LAM TUAN T/AU
E5	8	LAM V/AU
E6	1	LAM V C/AU
E7	3	LAM V C H/AU
E8	2	LAM V T/AU
E9	1	LAM V W/AU
E10	1	LAM V Y/AU
E11	1	LAM VAN/AU
E12	1	LAM VERONICA/AU

=> e jin lam toong/au

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E2	18	JIN L Z/AU
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E4	4	JIN LEE/AU
E5	1	JIN LEI/AU

E6	1	JIN LI/AU
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E8	1	JIN LUH SU/AU
E9	74	JIN M/AU
E10	1	JIN M B/AU
E11	3	JIN M G/AU
E12	11	JIN M H/AU

=> e lam toong/au

E1	5	LAM TONY M/AU
E2	4	LAM TONY Y K/AU
E3	0 -->	LAM TOONG/AU
E4	2	LAM TUAN T/AU
E5	8	LAM V/AU
E6	1	LAM V C/AU
E7	3	LAM V C H/AU
E8	2	LAM V T/AU
E9	1	LAM V W/AU
E10	1	LAM V Y/AU
E11	1	LAM VAN/AU
E12	1	LAM VERONICA/AU

=> e lam t j/au

E1	12	LAM T H/AU
E2	2	LAM T H L M/AU
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E6	1	LAM T K Y/AU
E7	1	LAM T L/AU
E8	10	LAM T M/AU
E9	1	LAM T N C/AU
E10	2	LAM T S/AU
E11	3	LAM T T/AU
E12	1	LAM T T F/AU

=> s e3

L1 13 "LAM T J"/AU

=> s l1 and fish

L2 9 L1 AND FISH

=> e sin y m/au

E1	1	SIN Y H/AU
E2	1	SIN Y K/AU
E3	4 -->	SIN Y M/AU
E4	6	SIN Y S/AU
E5	7	SIN Y T/AU
E6	1	SIN YONG H/AU
E7	1	SIN YOON K/AU
E8	1	SIN YOUNG DAE/AU
E9	2	SIN YOUNG KUN/AU
E10	1	SIN YUN SEONG/AU
E11	2	SIN YUN SEUNG/AU
E12	2	SIN YUN-SEUNG/AU

=> s e3

L3 4 "SIN Y M"/AU

=> s l3 and fish

L4 2 L3 AND FISH

=> d bib ab 1-2

L4 ANSWER 1 OF 2 USPATFULL  
AN 97:56339 USPATFULL  
TI Method for controlling infectious diseases in **fish** and other aquatic lifeforms in a closed culture system  
IN **Sin, Y. M.**, Singapore, Singapore  
Ling, K. H., Singapore, Singapore  
Lam, T. J., Singapore, Singapore  
PA National University of Singapore, Singapore (non-U.S. corporation)  
PI US 5643571 19970701  
AI US 1995-466025 19950606 (8)  
RLI Continuation of Ser. No. US 1993-103054, filed on 9 Aug 1993, now abandoned which is a continuation-in-part of Ser. No. US 1992-929865, filed on 17 Aug 1992, now abandoned  
DT Utility  
EXNAM Primary Examiner: Nucker, Christine M.; Assistant Examiner: Reeves, Julie E.  
LREP Lowe, Price, LeBlanc & Becker  
CLMN Number of Claims: 18  
ECL Exemplary Claim: 1  
DRWN 2 Drawing Figure(s); 1 Drawing Page(s)  
LN.CNT 1121  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
AB A method for controlling infectious diseases in **fish** and other aquatic lifeforms, regardless of their developmental stage. The method of controlling pathogenic organisms detrimental to aquatic lifeforms includes steps of adding **fish** which are pre-immunized against one or more organisms pathogenic to **fish** to the same aquatic medium and with normal **fish**. The pre-immunized **fish** continuously and increasingly release antibodies against the pathogenic organisms into the same aquatic medium and can protect or prevent naive (normal, non-infected) **fish** or naive aquatic lifeforms from infection and are able to enhance the recovery of infected **fish** or any aquatic lifeforms infected with the same diseases.

L4 ANSWER 2 OF 2 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD  
AN 1997-350187 [32] WPIDS  
DNC C1997-113006  
TI Controlling infectious diseases in aquatic life-forms - by adding immunised **fish**, which can release antibodies against pathogenic organisms, to aquatic media containing the aquatic life-forms.  
DC B04 C06 D16  
IN LAM, T J; LING, K H; **SIN, Y M**  
PA (UYSI-N) UNIV SINGAPORE NAT  
CYC 1  
PI US 5643571 A 19970701 (199732)\* 14p  
ADT US 5643571 A CIP of US 1992-929865 19920817, Cont of US 1993-103054 19930809, US 1995-466025 19950606  
PRAI US 1993-103054 19930809; US 1992-929865 19920817; US 1995-466025 19950606  
AB US 5643571 A UPAB: 19970806  
Controlling at least 1 pathogenic microorganism (selected from protozoan parasites and bacteria) which are detrimental to aquatic lifeforms (selected from **fish**, crustaceans, molluscs and echinoderms), comprises: (a) adding **fish** immunised against at least 1 of the pathogenic organisms to a culture system comprising an aquatic medium;  
(b) permitting the immunised **fish** to release antibodies against the pathogenic organisms into the aquatic medium; (c) adding the aquatic

lifeforms to the aquatic medium in which the aquatic lifeforms are to be treated or protected, and (d) allowing the antibodies to immuno-react with

the pathogenic organisms, thus controlling the pathogenic organisms.

USE - The method may be used for controlling diseases (such as white-spot disease, velvet disease, slimy skin disease and fin- and gill-rot diseases) caused by pathogenic organisms such as protozoa, bacteria, viruses or fungi (claimed).

ADVANTAGE - The process is a practical and reliable method for controlling infectious diseases in **fish** and other aquatic lifeforms, regardless of their developmental stage.

Dwg.1/2

=> d 12 bib ab 1-9

- L2 ANSWER 1 OF 9 AGRICOLA  
AN 2001:12834 AGRICOLA  
DN IND22088976  
TI Protein digestibility and amino acid availability of several protein sources for juvenile Chinese hairy crab *Eriocheir sinensis* H. Milne-Edwards (Decapoda, Grapsidae).  
AU Mu, Y.Y.; Lam, T.J.; Guo, J.Y.; Shim, K.F.  
AV DNAL (SH1.F8)  
SO Aquaculture research, Oct 2000.v.31 No. 10. p. 757-765  
Publisher: Oxford : Blackwell Science, c1995-  
CODEN: AQREFC; ISSN: 1355-557X  
NTE Includes references  
CY England; United Kingdom  
DT Article  
FS Non-U.S. Imprint other than FAO  
LA English  
AB Apparent and true values of protein digestibility (APD vs. TPD) and amino acid availability (AAAA vs. TAAA) of casein, gelatin, **fish** meal, shrimp meal, soybean meal and spirulina meal were determined for juvenile Chinese hairy crab *Eriocheir sinensis* H. Milne-Edwards. Assay diets were prepared by incorporation of 20% of a protein source into a reference diet. A protein-free diet (PFD) was used to estimate the metabolic faecal nitrogen (MFN) content and amino acid composition (MFAA). MFN content was 445.3 mg 100 g<sup>-1</sup> PFD. MFAA ranged from 19.6 mg 100 g<sup>-1</sup> PFD for tryptophan to 228.5 mg 100 g<sup>-1</sup> PFD for glutamic acid. Casein and gelatin trended towards higher APD, while **fish** meal had the lower APD and TPD. Although there was reasonable agreement between protein digestibility and average amino acid availability, protein sources had significant effects on AAAA and TAAA. For total amino acids and most individual amino acids, casein and gelatin were relatively higher both in AAAA and in TAAA, soybean meal and spirulina meal intermediate, while **fish** meal was lower. Data of AAAA and TAAA suggest that soybean meal and spirulina meal could be used as substitutes for animal proteins. Individual AAAAs and TAAAs were variable within and among protein sources. Those results suggest that determination of amino acid availabilities is necessary for the more accurate and economical feed formulation.
- L2 ANSWER 2 OF 9 AGRICOLA  
AN 1999:60570 AGRICOLA  
DN IND21999939  
TI Effects of treatment of eggs with triiodothyronine and cortisol on larval morphometry and survival in the greasy grouper.  
AU Tay, H.C.; Yong, A.N.; Goh, J.; Lim, H.S.; Chao, T.M.; Chou, R.; Lam, T.J.  
CS National University of Singapore.  
AV DNAL (SH1.A627)  
SO Aquaculture international : journal of the European Aquaculture Society, Mar 1997. Vol. 5, No. 2. p. 189-195

Publisher: London : Chapman & Hall, [1993-  
CODEN: AQINFS; ISSN: 0967-6120  
NTE Paper presented at the International **Fish** and Crustacean  
Larviculture Conference held September 4-7, 1995, Ghent, Belgium.  
Includes references  
CY England; United Kingdom  
DT Article  
FS Non-U.S. Imprint other than FAO  
LA English

L2 ANSWER 3 OF 9 AGRICOLA  
AN 94:86633 AGRICOLA  
DN IND20431855  
TI Two major groups of vitellogenin cDNA clones from *Oreochromis aureus*  
(Steindachner).  
AU Lee, B.H.; Lim, E.H.; **Lam, T.J.**; Ding, J.L.  
AV DNAL (QD415.A1B52)  
SO Biochemistry and molecular biology international, Aug 1994. Vol. 34, No.  
1. p. 75-83  
Publisher: Marrickville, N.S.W., Australia : Academic Press.  
CODEN: BMBIES; ISSN: 1039-9712  
NTE Includes references  
CY Australia  
DT Article  
FS Non-U.S. Imprint other than FAO  
LA English  
AB cDNA libraries were constructed using livers of male and female  
*Oreochromis aureus* that were stimulated with estradiol. Restriction map  
analyses of vitellogenin (Vg) cDNA clones indicated 4 subgroups with  
related restriction patterns, represented by pOAVg2 (from female) and  
pOAVg50, 71 & 87 (from male) **fish**. With the exception of  
pOAVg2, all other clones obtained from female **fish** resembled  
pOAVg50. There are no internal repeats within these cDNA clones.

Southern  
blot cross-hybridisations distinguished pOAVg87 (group A) from pOAVg2, 50  
and 71 (group B) The existence of these 2 major groups of Vg cDNAs was  
further confirmed by dot blot hybridisations and hybrid melting assays  
under varying stringencies. The difference of melting temperature, T<sub>m</sub>  
between the 2 groups suggests a 7% intraspecific divergence in the Vg  
gene family.

L2 ANSWER 4 OF 9 AGRICOLA  
AN 84:69811 AGRICOLA  
DN IND84050742  
TI Environmental influences on gonadal activity in **fish**  
[Reproductive physiology].  
AU **Lam, T.J.**  
AV DNAL (QL639.1.H6)  
SO Fish physiology., 1983 Vol. 9, No. pt.B. p. 65-116  
Publisher: New York, N.Y. : Academic Press..  
NTE Literature review.  
Includes references.  
DT Article; Law  
FS U.S. Imprints not USDA, Experiment or Extension  
LA English

L2 ANSWER 5 OF 9 AGRICOLA  
AN 82:60352 AGRICOLA  
DN IND82042837  
TI **Fish** culture in Southeast Asia Indonesia, Malaysia, Philippines,  
Singapore, Thailand.  
AU **Lam, T.J.**  
AV DNAL (442.9 C16J)  
SO Canadian journal of fisheries and aquatic sciences = Journal canadien des

sciences halieutiques et aquatiques., Jan 1982 Vol. 39, No. 1. p.  
138-142  
Publisher: Ottawa, Govt. of Canada, Fisheries and Oceans.  
ISSN: 0706-652X  
NTE Includes 2 p. ref.  
DT Article  
FS Non-U.S. Imprint other than FAO  
LA English  
SL French

L2 ANSWER 6 OF 9 AGRICOLA  
AN 82:60351 AGRICOLA  
DN IND82042836  
TI Applications of endocrinology to **fish** culture Hormones, induced  
breeding, larval rearing.  
AU **Lam, T.J.**  
AV DNAL (442.9 C16J)  
SO Canadian journal of fisheries and aquatic sciences = Journal canadien des  
sciences halieutiques et aquatiques., Jan 1982 Vol. 39, No. 1. p. 111-137  
ill  
Publisher: Ottawa, Govt. of Canada, Fisheries and Oceans.  
ISSN: 0706-652X  
NTE Literature review.  
Includes 7 p. ref.  
DT Article  
FS Non-U.S. Imprint other than FAO  
LA English  
SL French

L2 ANSWER 7 OF 9 USPATFULL  
AN 97:56339 USPATFULL  
TI Method for controlling infectious diseases in **fish** and other  
aquatic lifeforms in a closed culture system  
IN Sin, Y. M., Singapore, Singapore  
Ling, K. H., Singapore, Singapore  
**Lam, T. J.**, Singapore, Singapore  
PA National University of Singapore, Singapore (non-U.S. corporation)  
PI US 5643571 19970701  
AI US 1995-466025 19950606 (8)  
RLI Continuation of Ser. No. US 1993-103054, filed on 9 Aug 1993, now  
abandoned which is a continuation-in-part of Ser. No. US 1992-929865,  
filed on 17 Aug 1992, now abandoned  
DT Utility  
EXNAM Primary Examiner: Nucker, Christine M.; Assistant Examiner: Reeves,  
Julie E.  
LREP Lowe, Price, LeBlanc & Becker  
CLMN Number of Claims: 18  
ECL Exemplary Claim: 1  
DRWN 2 Drawing Figure(s); 1 Drawing Page(s)  
LN.CNT 1121  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
AB A method for controlling infectious diseases in **fish** and other  
aquatic lifeforms, regardless of their developmental stage. The method  
of controlling pathogenic organisms detrimental to aquatic lifeforms  
includes steps of adding **fish** which are pre-immunized against  
one or more organisms pathogenic to **fish** to the same aquatic  
medium and with normal **fish**. The pre-immunized **fish**  
continuously and increasingly release antibodies against the pathogenic  
organisms into the same aquatic medium and can protect or prevent naive  
(normal, non-infected) **fish** or naive aquatic lifeforms from  
infection and are able to enhance the recovery of infected **fish**  
or any aquatic lifeforms infected with the same diseases.

L2 ANSWER 8 OF 9 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD  
AN 2000-558297 [51] WPIDS

DNC C2000-166269

TI Zebrafish gene promoters, used to create transgenic zebrafish, useful for sensing steroid hormones and heavy metals in water samples.

DC B04 C06 D15 D16 J04

IN GONG, Z; JU, B; **LAM, T J**

PA (HEJJ-I) HE J; (UYSI-N) UNIV SINGAPORE NAT; (XUYY-I) XU Y; (YANT-I) YAN T

CYC 21

PI WO 2000049150 A1 20000824 (200051)\* EN 72p  
RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE  
W: CA JP US

ADT WO 2000049150 A1 WO 1999-SG79 19990716

PRAI SG 1999-811 19990218

AB WO 200049150 A UPAB: 20001102

NOVELTY - Zebrafish (*Danio rerio*) cytokeratin gene promoter (I) which is capable of directing a structural gene to be predominantly expressed in skin epithelia when it is inserted in front of the structural gene and introduced into **fish** embryos, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) a zebrafish muscle creatine kinase gene promoter which is capable of directing a structural gene to be specifically expressed in muscles;

(2) a zebrafish fast skeletal muscle isoform of myosin light chain 2 gene promoter which is capable of directing a structural gene to be predominantly expressed in skeletal muscles;

(3) a zebrafish acidic ribosomal protein P0 gene promoter which is capable of directing structural gene expression ubiquitously in all tissues;

(4) a recombinant DNA molecule comprising a structural gene and the promoter of (I), (1), (2) or (3) arranged upstream of the structural gene;

(5) a chimeric gene comprising the promoter of (I), (1), (2) or (3), linked to DNA encoding green fluorescent protein (GFP), modified GFP, enhanced GFP (EGFP), BFP, EBFP, YFP, EYFP, CFP, ECFP, luciferase, beta-galactosidase, chloramphenicol acetyl transferase or a growth hormone;

(6) a transgenic **fish** comprising a chimeric gene comprising the promoter of (I), (1), (2) or (3);

(7) a transgenic **fish** comprising DNA that encodes a fluorescent protein under control of a promoter that causes the DNA to be expressed in predominately skin epithelia, to be specifically expressed in muscles, to be predominantly expressed in skeletal muscles, or to be expressed ubiquitously in all tissues;

(8) a recombinant DNA vector comprising a promoter that hybridizes to a 2241, 1456, 2205, or 2054 base pair (bp) sequence given in the specification, operatively linked to a structural gene encoding a fluorescent or chemiluminescent protein;

(9) a cell transformed with the vector of (8);

(10) a transgenic **fish** comprising a chimeric gene that comprises a promoter and a structural gene as in (8);

(11) sensing a steroid hormone or a steroid hormone derivative in a water sample, comprising:

(a) contacting a **fish** expressing a fluorescent or chemiluminescent protein under control of an estrogen- or other steroid hormone-inducible promoter with a sample of water; and

(b) measuring the amount of fluorescent or chemiluminescent light from the **fish**; and

(12) sensing heavy metals, such as zinc, copper, cadmium, mercury etc., in a water sample, comprising:

(a) contacting a **fish** expressing a fluorescent or chemiluminescent protein under control of a heavy metal-inducible promoter with a sample of water; and

(b) measuring the amount of fluorescent or chemiluminescent light



from the **fish**.

USE - The promoters can be used in recombinant DNA molecules, or chimeric genes and the chimeric genes can be used to create transgenic **fish** or in a vector used to transform a cell. The transgenic **fish** can be used in methods for detecting steroid hormones, or heavy metals such as zinc, copper, cadmium and mercury, in a water sample (all claimed) (i.e. in environmental monitoring and for monitoring pollution). The transgenic **fish** may also be used as ornamental **fish**.

ADVANTAGE - None given.

DESCRIPTION OF DRAWING(S) - The diagram shows the chimeric construct pMLC2f-EGFP.

Dwg. 7/13

L2 ANSWER 9 OF 9 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD  
AN 1997-350187 [32] WPIDS  
DNC C1997-113006  
TI Controlling infectious diseases in aquatic life-forms - by adding immunised **fish**, which can release antibodies against pathogenic organisms, to aquatic media containing the aquatic life-forms.  
DC B04 C06 D16  
IN **LAM, T J**; LING, K H; SIN, Y M  
PA (UYSI-N) UNIV SINGAPORE NAT  
CYC 1  
PI US 5643571 A 19970701 (199732)\* 14p  
ADT US 5643571 A CIP of US 1992-929865 19920817, Cont of US 1993-103054 19930809, US 1995-466025 19950606  
PRAI US 1993-103054 19930809; US 1992-929865 19920817; US 1995-466025 19950606  
AB US 5643571 A UPAB: 19970806  
Controlling at least 1 pathogenic microorganism (selected from protozoan parasites and bacteria) which are detrimental to aquatic lifeforms (selected from **fish**, crustaceans, molluscs and echinoderms), comprises: (a) adding **fish** immunised against at least 1 of the pathogenic organisms to a culture system comprising an aquatic medium;  
(b) permitting the immunised **fish** to release antibodies against the pathogenic organisms into the aquatic medium; (c) adding the aquatic lifeforms to the aquatic medium in which the aquatic lifeforms are to be treated or protected, and (d) allowing the antibodies to immuno-react with the pathogenic organisms, thus controlling the pathogenic organisms.  
USE - The method may be used for controlling diseases (such as white-spot disease, velvet disease, slimy skin disease and fin- and gill-rot diseases) caused by pathogenic organisms such as protozoa, bacteria, viruses or fungi (claimed).  
ADVANTAGE - The process is a practical and reliable method for controlling infectious diseases in **fish** and other aquatic lifeforms, regardless of their developmental stage.  
Dwg. 1/2

=> e gong zhiyuan/au

E1	6	GONG Z X/AU
E2	4	GONG Z Z/AU
E3	0 -->	GONG ZHIYUAN/AU
E4	1	GONG ZUXIANG/AU
E5	3	GONGADZE N V/AU
E6	1	GONGADZE O I/AU
E7	2	GONGADZE R N/AU
E8	8	GONGADZE T A/AU
E9	1	GONGALEZ FERNANDEZ A/AU
E10	1	GONGALEZ HALPHEN D/AU
E11	1	GONGALIUK N G/AU

```

E12          1      GONGALO R F/AU

=> s e2

L5          4 "GONG Z Z"/AU

=> s l5 and fish

L6          0 L5 AND FISH

=> d l5 ti 1-4


L5  ANSWER 1 OF 4  AGRICOLA
TI  A constitutively expressed Myc-like gene involved in anthocyanin
    biosynthesis from Perilla frutescens: molecular characterization,
    heterologous expression in transgenic plants and transactivation in yeast
    cells.

L5  ANSWER 2 OF 4  AGRICOLA
TI  A light-inducible Myb-like gene that is specifically expressed in red
    Perilla frutescens and presumably acts as a determining factor of the
    anthocyanin forma.

L5  ANSWER 3 OF 4  AGRICOLA
TI  Cloning and molecular analysis of structural genes involved in
    anthocyanin
    biosynthesis and expressed in a forma-specific manner in Perilla
    frutescens.

L5  ANSWER 4 OF 4  AGRICOLA
TI  Purification and characterization of the individual glutathione
    S-transferases from sheep liver.

=> s ichthyophthirius

L7          79 ICHTHYOPHTHIRIUS

=> s l7 and fish

L8          49 L7 AND FISH

=> s l8 and immobilization antigen

L9          0 L8 AND IMMOBILIZATION ANTIGEN

=> dup rem l8

PROCESSING COMPLETED FOR L8
L10         49 DUP REM L8 (0 DUPLICATES REMOVED)

=> s l10 and vaccin?

L11         9 L10 AND VACCIN?

=> d bib ab 1-9


L11  ANSWER 1 OF 9  AGRICOLA
AN  97:50246  AGRICOLA
DN  IND20578953
TI  Passive immunization of channel catfish (Ictalurus punctatus) against the
    ciliated protozoan parasite Ichthyophthirius multifiliis by use
    of murine monoclonal antibodies.

```

AU Lin, T.L.; Clark, T.G.; Dickerson, H.  
CS Fujiann Academy of Agricultural Sciences, Fuijan, People's Republic of China.  
AV DNAL (QR1.I57)  
SO Infection and immunity, Oct 1996. Vol. 64, No. 10. p. 4085-4090  
Publisher: Washington, D.C., American Society for Microbiology  
ISSN: 0019-9567  
NTE Includes references  
CY District of Columbia; United States  
DT Article  
FS U.S. Imprints not USDA, Experiment or Extension  
LA English  
AB

**Fish** acquire immunity against the ciliated protozoan parasite **Ichthyophthirius multifiliis** following sublethal infection. The immune response includes the elaboration of humoral antibodies against a class of abundant surface membrane proteins referred to as immobilization antigens (i-antigens). Antibodies against these proteins immobilize the parasite in vitro, suggesting a potential role for the i-antigens in protective immunity. To test this hypothesis, passive immunization experiments were carried out with naive channel catfish, *Ictalurus punctatus*, using immobilizing murine monoclonal antibodies (MABs). **Fish** were completely protected against lethal challenge following intraperitoneal injection of 20 to 200 micrograms of MAB. Although **fish** succumbed to infection at lower doses, palliative effects were observed with as little as 2 micrograms of antibody. In experiments in which animals were challenged at various times following inoculation, an inverse relationship between parasite load and serum immobilizing activity was seen. Of seven MABs which conferred protection, all were immunoglobulin G class antibodies. The only immobilizing MAB that failed to protect was an immunoglobulin M antibody that was absent from surface mucosa as determined by enzyme-linked immunosorbent assay. The implications of these findings for the development of a **vaccine** against *I. multifiliis* and immunity against surface pathogens of **fish** are discussed.

L11 ANSWER 2 OF 9 USPATFULL  
AN 2001:14470 USPATFULL  
TI DNA based **vaccination** of **fish**  
IN Davis, Heather L., Ottawa, Canada  
PA Loeb Health Research Institute at The Ottawa Hospital, Ottawa, Canada (non-U.S. corporation)  
PI US 6180614 20010130  
AI US 1998-115423 19980714 (9)  
RLI Continuation of Ser. No. US 1996-740805, filed on 4 Nov 1996, now patented, Pat. No. US 5780448, issued on 14 Jul 1998  
PRAI US 1995-6290 19951107 (60)  
DT Utility  
EXNAM Primary Examiner: Salimi, Ali R.  
LREP Yankwich, Leon R.; O'Brien, David G.  
CLMN Number of Claims: 84  
ECL Exemplary Claim: 1  
DRWN No Drawings  
LN.CNT 1280  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
AB The present invention relates to methods of immunization of aquaculture species by introducing DNA expression systems into the aquaculture species. Such DNA expression systems preferably include DNA sequences encoding polypeptides of pathogens of species of aquaculture. The present invention also relates to methods of administration of DNA expression systems into aquaculture. Such methods include injection, spray, and immersion techniques. The methods of this invention are useful for prophylactic **vaccination** or therapeutic immunization of fin-**fish**, shellfish, or other aquatic animals against infectious diseases.

L11 ANSWER 3 OF 9 USPATFULL  
AN 1998:82736 USPATFULL  
TI DNA-based **vaccination** of **fish**  
IN Davis, Heather L., Ottawa, Canada  
PA Ottawa Civic Hospital Loeb Research, Ottawa, Canada (non-U.S. corporation)  
PI US 5780448 19980714  
AI US 1996-740805 19961104 (8)  
PRAI US 1995-6290 19951107 (60)  
DT Utility  
EXNAM Primary Examiner: Mosher, Mary E.; Assistant Examiner: Salimi, Ali R.  
LREP Fish & Richardson, P.C.  
CLMN Number of Claims: 83  
ECL Exemplary Claim: 1  
DRWN No Drawings  
LN.CNT 1309

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to methods of immunization of aquaculture species by introducing DNA expression systems into the aquaculture species. Such DNA expression systems preferably include DNA sequences encoding polypeptides of pathogens of species of aquaculture. The present invention also relates to methods of administration of DNA expression systems into aquaculture. Such methods include injection, spray, and immersion techniques. The methods of this invention are useful for prophylactic **vaccination** or therapeutic immunization of fin-**fish**, shellfish, or other aquatic animals against infectious diseases.

L11 ANSWER 4 OF 9 USPATFULL  
AN 97:56339 USPATFULL  
TI Method for controlling infectious diseases in **fish** and other aquatic lifeforms in a closed culture system  
IN Sin, Y. M., Singapore, Singapore  
Ling, K. H., Singapore, Singapore  
Lam, T. J., Singapore, Singapore  
PA National University of Singapore, Singapore (non-U.S. corporation)  
PI US 5643571 19970701  
AI US 1995-466025 19950606 (8)  
RLI Continuation of Ser. No. US 1993-103054, filed on 9 Aug 1993, now abandoned which is a continuation-in-part of Ser. No. US 1992-929865, filed on 17 Aug 1992, now abandoned  
DT Utility  
EXNAM Primary Examiner: Nucker, Christine M.; Assistant Examiner: Reeves, Julie E.  
LREP Lowe, Price, LeBlanc & Becker  
CLMN Number of Claims: 18  
ECL Exemplary Claim: 1  
DRWN 2 Drawing Figure(s); 1 Drawing Page(s)  
LN.CNT 1121

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method for controlling infectious diseases in **fish** and other aquatic lifeforms, regardless of their developmental stage. The method of controlling pathogenic organisms detrimental to aquatic lifeforms includes steps of adding **fish** which are pre-immunized against one or more organisms pathogenic to **fish** to the same aquatic medium and with normal **fish**. The pre-immunized **fish** continuously and increasingly release antibodies against the pathogenic organisms into the same aquatic medium and can protect or prevent naïve (normal, non-infected) **fish** or naïve aquatic lifeforms from infection and are able to enhance the recovery of infected **fish** or any aquatic lifeforms infected with the same diseases.

L11 ANSWER 5 OF 9 USPATFULL  
AN 97:3530 USPATFULL  
TI Protection of teleost **fish**

IN Evans, Donald L., Athens, GA, United States  
 Jaso-Friedmann, Liliana, Athens, GA, United States  
 PA University of Georgia Research Foundation, Athens, GA, United States  
 (U.S. corporation)  
 PI US 5593678 19970114  
 AI US 1994-321231 19941011 (8)  
 DT Utility  
 EXNAM Primary Examiner: Housel, James C.; Assistant Examiner: Shaver,  
 Jennifer  
 LREP Greenlee, Winner and Sullivan, P.C.  
 CLMN Number of Claims: 18  
 ECL Exemplary Claim: 1  
 DRWN 11 Drawing Figure(s); 11 Drawing Page(s)  
 LN.CNT 1823  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
 AB Utility of protein phosphatase inhibitors to protect teleost  
**fish** from microorganismic pathogens is disclosed. The present  
 invention provides pharmaceutical compositions, kits, and methods of  
 therapeutic and prophylactic treatments comprising sodium orthovanadate  
 or vanadate-mimetic protein phosphatase inhibitors to protect  
**fish**, for example, catfish, from infection and disease caused by  
 microorganismic pathogens, e.g., Edwardsiella. Sodium orthovanadate, a  
 protein phosphatase inhibitor, and vanadate-mimetic protein phosphatase  
 inhibitors activate in vitro and in vivo the cytotoxicity of teleost  
 nonspecific cytotoxic cells (NCC).  
 L11 ANSWER 6 OF 9 USPATFULL  
 AN 82:886 USPATFULL  
 TI **Vaccines** from taxonomically similar organisms  
 IN Gratzek, John B., Athens, GA, United States  
 Goven, Beverly A., Bellevue, WA, United States  
 Dawe, Donald L., High Shoals, GA, United States  
 PA Research Corporation, New York, NY, United States (U.S. corporation)  
 PI US 4309416 19820105  
 AI US 1979-77269 19790920 (6)  
 DT Utility  
 EXNAM Primary Examiner: Rose, Shep K.  
 LREP Oblon, Fisher, Spivak, McClelland & Maier  
 CLMN Number of Claims: 6  
 ECL Exemplary Claim: 1  
 DRWN No Drawings  
 LN.CNT 445  
 AB A **vaccine** for protection against an infectious organism which  
 cannot be readily cultured in vitro comprising an antigen derived from  
 a taxonomically similar organism which is readily cultured in vitro. The  
 method of preparation and the method of use are also disclosed.  
 L11 ANSWER 7 OF 9 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD  
 AN 2000-514962 [46] WPIDS  
 CR 2000-506071 [44]  
 DNN N2000-380572 DNC C2000-153683  
 TI Recombinant expression systems for expressing heterologous nucleic acids  
 and producing recombinant protein, comprises nonpathogenic protozoa such  
 as Tetrahymena resistant to paclitaxel.  
 DC B04 C06 D16 S03  
 IN CLARK, T G; DICKERSON, H W; GAERTIG, J  
 PA (CLAR-I) CLARK T G; (DICK-I) DICKERSON H W; (GAER-I) GAERTIG J; (UYGE-N)  
 UNIV GEORGIA RES FOUND INC  
 CYC 89  
 PI WO 2000046381 A1 20000810 (200046)\* EN 83p  
 RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL  
 OA PT SD SE SL SZ TZ UG ZW  
 W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES  
 FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS

AU 2000027563 A 20000825 (200059)  
ADT WO 2000046381 A1 WO 2000-US2966 20000204; AU 2000027563 A AU 2000-27563  
20000204  
FDT AU 2000027563 A Based on WO 200046381  
PRAI US 1999-131121 19990427; US 1999-118634 19990204; US 1999-122372  
19990302; US 1999-124905 19990317  
AB WO 200046381 A UPAB: 20001117

NOVELTY - A recombinant protein expression system (I) comprises a transgenic protozoan host cell resistant to paclitaxel containing a heterologous nucleic acid encoding a polypeptide, selectable by negative selection using paclitaxel.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) an expression vector (II) comprising a 5' flanking region followed by a heterologous nucleic acid encoding a polypeptide comprising at least one targeting amino acid sequence encoded by a portion of an i-antigen-encoding nucleotide sequence from *Ichthyophthirius multifiliis* followed by a 3' flanking region, where at least a portion of each of the 5' flanking region and the 3' flanking region is complementary

to an endogenous gene of an intended host, to allow integration into the endogenous gene by homologous recombination;

(2) a transgenic *Tetrahymena thermophila* comprising at least a portion of an *I. multifiliis* i-antigen protein;

(3) a transgenic cell (III) comprising a heterologous protein comprising at least one targeting amino acid sequence encoded by an i-antigen encoding nucleotide sequence from *I. multifiliis*;

(4) a method for preparing a polyclonal antibody;

(5) a method for detecting antibodies to an antigenic polypeptide comprising expressing the antigenic polypeptide on the surface of a transgenic protozoan host cell, exposing the host cell to an antibody and determining whether the swimming behavior of host cell is altered, where an alteration in the swimming behavior of the host cell is indicative of binding of the presence of antibodies to the antigenic polypeptide; and

(6) screening (IV) drugs for the ability to bind a polypeptide comprising expressing the polypeptide on the surface of a transgenic protozoan host cell, exposing the host cell to a drug and determining whether the swimming behavior of host cell is altered, where an alteration in the swimming behavior of the host cell is indicative of binding of the drug to the polypeptide;

(7) a **vaccine** (V) comprising a transgenic non-pathogenic immunogenic protozoan comprising a surface-displayed antigenic polypeptide; and

(8) recombinant methods of producing a polypeptide.

ACTIVITY - Protozoacide.

MECHANISM OF ACTION - **Vaccine**.

*Tetrahymena thermophila* cells were transformed with the entire IAG48(G1) gene of *I. multifiliis* G1 which encodes the GPI anchored 48 kDa i-antigen or a truncated gene sequence. Transformants encoding the intact or C-terminal truncated i-antigen were grown in standard *Tetrahymena* growth medium. Groups of channel catfish were immunized intraperitoneally with *T. thermophila* transformants producing intact or truncated i-antigen. **Fish** were injected two times at a 30 day interval and challenged 21 days after the last immunization G5 *Ichthyophthirius*. The results showed that a greater degree of protection was elicited in immunized **fish** compared to controls. The antibody response of **fish** injected with live cells secreting recombinant i-antigen was two fold greater than the antibody response of **fish** immunized with *Tetrahymena* producing the membrane-bound intact i-antigen.

USE - The protein expression systems are useful for producing a polypeptide, comprising introducing (I) into a protozoan host cell that

resistant to paclitaxel, or a ciliated protozoan host cell to yield a transgenic protozoan host cell that is selectable by negative selection using paclitaxel and expressing the transgenic polypeptide in the transgenic protozoan host cell (claimed). The polypeptide is preferably an antigenic polypeptide and is expressed on the plasma membrane surface of the host cell and cleaved from the membrane surface of the transgenic host cell. Transgenic ciliated protozoa are useful as live **vaccines** for stimulating an immune response in a vertebrate. The transgenic protozoan host cells are useful for producing polyclonal antibodies (claimed). The cells are also useful for detecting antibodies to the antigenic polypeptide, by exposing host cells expressing the antigenic polypeptide on the surface to an antibody and determining alteration in the swimming behavior of the protozoan host cell, where swimming behavior of the cell is altered in the presence of the antibodies to the antigenic polypeptide. The host cell is immobilized and exposed to the body fluid of the patient suspected of being infected with the parasite (all claimed). Tetrahymena expressing I.multifiliis i-antigen protein on their surface are effective vehicles for **vaccination** of freshwater **fish** against infection by I.multifiliis.

ADVANTAGE - The protein expression systems are suitable for large scale and analytical scale production of recombinant polypeptides and are particularly useful for expression of polypeptides that are difficult to produce in conventional recombinant protein expression systems.  
Dwg.0/10

L11 ANSWER 8 OF 9 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD  
AN 2000-506071 [45] WPIDS  
CR 2000-514962 [44]  
DNC C2000-151959  
TI Novel i-antigen polypeptides and polynucleotides from **Ichthyophthirius** multifiliis, useful for prophylaxis and treatment of **Ichthyophthirius** infection in **fish**.  
DC B04 C06 D16  
IN CLARK, T G; DICKERSON, H W; LIN, T  
PA (CLAR-I) CLARK T G; (CORR) CORNELL RES FOUND INC; (DICK-I) DICKERSON H W; (LINT-I) LIN T; (UYGE-N) UNIV GEORGIA RES FOUND INC  
CYC 89  
PI WO 2000046373 A1 20000810 (200045)\* EN 144p  
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL  
OA PT SD SE SL SZ TZ UG ZW  
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES  
FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS  
LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL  
TJ TM TR TT TZ UA UG UZ VN YU ZA ZW  
AU 2000027561 A 20000825 (200059)  
ADT WO 2000046373 A1 WO 2000-US2962 20000204; AU 2000027561 A AU 2000-27561 20000204  
FDT AU 2000027561 A Based on WO 200046373  
PRAI US 1999-131121 19990427; US 1999-118634 19990204; US 1999-122372 19990302; US 1999-124905 19990317  
AB WO 200046373 A UPAB: 20001117  
468 NOVELTY - An i-antigen polypeptide having a defined sequence of 442 or amino acids (given in the specification) from a G1 or G5 isolate of **Ichthyophthirius** multifiliis (or its fragment comprising C-terminal or at least 1 terminal portion, its analog or an antigenic fragment), is new.  
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:  
(1) a nucleic acid molecule (II) comprising a polynucleotide fragment having a nucleotide that encodes (I);

(2) a nucleic acid molecule that is complementary to (II);  
 (3) a composition (III) for inducing an immune response in a **fish** comprising (I) or (II);  
 (4) a host cell transformed with (II);  
 (5) a **fish** comprising (II);  
 (6) transformed Tetrahymena comprising (II);  
 (7) an antibody capable of binding (I);  
 (8) identifying an **Ichthyophthirius** multifiliis serotype comprising providing a sample comprising a **Ichthyophthirius** multifiliis nucleic acid molecule having a nucleotide sequence encoding an i-antigen, adding to the sample at least 1 primer oligonucleotide having a sequence complementary to a unique region of the **Ichthyophthirius** multifiliis nucleotide sequence, and subjecting the sample to amplification conditions; and  
 (9) detecting (IV) **Ichthyophthirius** in an aquaculture, comprising obtaining a sample containing nucleic acid from an aqua culture **fish** or an aqua culture water, adding at least 1 primer oligonucleotide having a sequence complementary to a portion of a sequence of 1326 or 1404 base pairs (bp) (defined in the specification) to the nucleic acid sample, conducting a polymerase chain reaction (PCR) amplification with the sample.

ACTIVITY - Protozoacide.  
 MECHANISM OF ACTION - **Vaccine**.  
 Effect of I. multifiliis i-antigens to elicit protective immune response in channel catfish was studied. **Fish** were immunized by two intraperitoneal injections consisting of 10 mu g of purified 55 kD (kilodalton) i-antigen of the I. multifiliis G5 isolate in Freund's complete or incomplete adjuvant. As a positive control **fish** were **vaccinated** by two injections live, G5 parasites without adjuvant. All groups were challenged with infective G5 theronts 8 weeks after the last injection. Seventy-two percent of **fish** immunized with the i-antigen and 59.2% of **fish** immunized with live parasites survived the challenge while all of the negative control animals were dead.

USE - (III) is useful for prophylaxis, treatment or for controlling I. multifiliis infection in **fish**. Polynucleotide or protein **vaccine** comprising a portion of the amplified product encoding an antigenic polypeptide obtained by (IV) is useful for treating or preventing I. multifiliis infection in **fish** (claimed).  
 Dwg.0/21

L11 ANSWER 9 OF 9 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD  
 AN 1981-29021D [16] WPIDS  
 TI **Vaccine** contg. ciliary protein from Tetrahymena pyriformis - for immunising **fish** against **ichthyophthirius** multifiliis etc..  
 DC B04 C03 D16  
 IN DAWE, D L; GOVEN, B A; GRATZEK, J B  
 PA (RESE) RESEARCH CORP  
 CYC 5  
 PI WO 8100812 A 19810402 (198116)\* EN  
 RW: DE FR GB  
 W: JP  
 EP 38337 A 19811028 (198145) EN  
 R: DE FR GB  
 JP 56501130 W 19810813 (198151)  
 US 4309416 A 19820105 (198204)  
 EP 38337 B 19840613 (198425) EN  
 R: DE FR GB  
 DE 3068224 G 19840719 (198430)  
 JP 01031489 B 19890626 (198929)



ADT EP 38337 A EP 1980-902005 19800922

PRAI US 1979-77269 19790920

AB WO 8100812 A UPAB: 19930915

Veterinary **vaccine** for immunising **fish** comprises a ciliary protein derived from Tetrahymena pyriformis cilia and an inert solvent..

The **vaccine** immunises **fish** against **Ichthyophthirius** multifiliis and Cryptocaryon irritans, which are holotrichous ciliates ectoparasitic on the gill and hypodermis of **fish**.

These parasites cause severe epizootics in the culture of food **fish** and ornamental **fish**, esp. in high density ponds, and normal chemical treatments are ineffective in removing the encysted stage.

=> d his

(FILE 'HOME' ENTERED AT 09:51:13 ON 15 MAR 2001)

FILE 'AGRICOLA, USPATFULL, WPIDS, JAPIO' ENTERED AT 09:51:31 ON 15 MAR 2001

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                E SIN MIN YOKE/AU
                E MIN SIN YOKE/AU
                E LAM TOONG JIN/AU
                E JIN LAM TOONG/AU
                E LAM TOONG/AU
                E LAM T J/AU
L1              13 S E3
L2              9 S L1 AND FISH
                E SIN Y M/AU
L3              4 S E3
L4              2 S L3 AND FISH
                E GONG ZHIYUAN/AU
L5              4 S E2
L6              0 S L5 AND FISH
L7              79 S ICHTHYOPHTHIRIUS
L8              49 S L7 AND FISH
L9              0 S L8 AND IMMOBILIZATION ANTIGEN
L10             49 DUP REM L8 (0 DUPLICATES REMOVED)
L11             9 S L10 AND VACCIN?
```

=> s ichthyophthiriasis

L12 13 ICHTHYOPHTHIRIASIS

=> s l13 and fish

L13 NOT FOUND

The L-number entered could not be found. To see the definition of L-numbers, enter DISPLAY HISTORY at an arrow prompt (=>).

=> s l12 and fish

L13 9 L12 AND FISH

=> d bib ab 1-9

L13 ANSWER 1 OF 9 AGRICOLA

AN 83:153165 AGRICOLA

DN PAR83006942

TI The use of nifurpirinol in the control of chilodonelliasis and **ichthyophthiriasis** in species of Colombian cold water **fish**

AU Conroy, D.A.; Vasquez, C.; Morales, J.  
 AV DNAL (SH171.A1J68)  
 SO Journal of fish diseases., Nov 1980 Vol. 3, No. 6. p. 531-532  
 Publisher: Oxford : Blackwell Scientific.  
 ISSN: 0140-7775  
 DT Article  
 FS Non-U.S. Imprint other than FAO  
 LA English  
 AB chilodonelliasis and **ichthyophthiriasis** in captive cold water  
**fish**, use of nifurpirinol in control

L13 ANSWER 2 OF 9 AGRICOLA  
 AN 83:152403 AGRICOLA  
 DN PAR83006178  
 TI **Ichthyophthiriasis**: Immersion immunization of rainbow trout  
 (Salmo gairdneri) using Tetrahymena thermophila as a protective  
 immunogen.  
 AU Wolf, K.; Markiw, M.E.  
 AV DNAL (442.9 C16J)  
 SO Canadian journal of fisheries and aquatic sciences = Journal canadien des  
 sciences halieutiques et aquatiques., Dec 1982 Vol. 39, No. 12. p.  
 1722-1725  
 Publisher: Hull : Minister of Supply and Services Canada.  
 ISSN: 0706-652X  
 DT Article  
 FS Non-U.S. Imprint other than FAO  
 LA English  
 SL French  
 AB Ichthyophthirius multifiliis, immunization of young Salmo gairdneri by  
 bath immersion in suspension of whole cells or of sheared cilia of  
 Tetrahymena thermophila, this immunization also provided protection  
 against unexpected outbreak of Ichtyobodo necatrix, survivors of I.  
 necatrix were more numerous among **fish** exposed to whole cell  
 antigen than to sheared cilia

L13 ANSWER 3 OF 9 AGRICOLA  
 AN 83:60886 AGRICOLA  
 DN IND83049564  
 TI **Ichthyophthiriasis**: immersion immunization of rainbow trout  
 (Salmo gairdneri) using Tetrahymena thermophila as a protective immunogen  
 Protozoan parasites of **fish**.  
 AU Wolf, K.; Markiw, M.E.  
 AV DNAL (442.9 C16J)  
 SO Canadian journal of fisheries and aquatic sciences = Journal canadien des  
 sciences halieutiques et aquatiques., Dec 1982 Vol. 39, No. 12. p.  
 1722-1725  
 Publisher: Hull : Minister of Supply and Services Canada.  
 ISSN: 0706-652X  
 NTE Includes references.  
 DT Article  
 FS Non-U.S. Imprint other than FAO  
 LA English  
 SL French

L13 ANSWER 4 OF 9 AGRICOLA  
 AN 81:7546 AGRICOLA  
 DN IND81006856  
 TI The use of nifurpirinol in the control of chilodonelliasis and  
**ichthyophthiriasis** caused by the holotrichous ciliates  
 Chilodonella sp. and Ichthyophthirius multifiliis in species of Colombian  
 cold water **fish** Pygidium sp..  
 AU Conroy, D.A.; Vasquez, C.; Morales, J.  
 AV DNAL (SH171.A1J68)  
 SO Journal of fish diseases., Nov 1980 Vol. 3, No. 6. p. 531-532 ill

Publisher: Oxford, Blackwell Scientific.  
ISSN: 0140-7775

NTE 4 ref.  
DT Article  
FS Non-U.S. Imprint other than FAO  
LA English

L13 ANSWER 5 OF 9 USPATFULL

AN 97:56339 USPATFULL

TI Method for controlling infectious diseases in **fish** and other aquatic lifeforms in a closed culture system

IN Sin, Y. M., Singapore, Singapore  
Ling, K. H., Singapore, Singapore  
Lam, T. J., Singapore, Singapore

PA National University of Singapore, Singapore (non-U.S. corporation)

PI US 5643571 19970701

AI US 1995-466025 19950606 (8)

RLI Continuation of Ser. No. US 1993-103054, filed on 9 Aug 1993, now abandoned which is a continuation-in-part of Ser. No. US 1992-929865, filed on 17 Aug 1992, now abandoned

DT Utility

EXNAM Primary Examiner: Nucker, Christine M.; Assistant Examiner: Reeves, Julie E.

LREP Lowe, Price, LeBlanc & Becker

CLMN Number of Claims: 18

ECL Exemplary Claim: 1

DRWN 2 Drawing Figure(s); 1 Drawing Page(s)

LN.CNT 1121

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method for controlling infectious diseases in **fish** and other aquatic lifeforms, regardless of their developmental stage. The method of controlling pathogenic organisms detrimental to aquatic lifeforms includes steps of adding **fish** which are pre-immunized against one or more organisms pathogenic to **fish** to the same aquatic medium and with normal **fish**. The pre-immunized **fish** continuously and increasingly release antibodies against the pathogenic organisms into the same aquatic medium and can protect or prevent naive (normal, non-infected) **fish** or naive aquatic lifeforms from infection and are able to enhance the recovery of infected **fish** or any aquatic lifeforms infected with the same diseases.

L13 ANSWER 6 OF 9 USPATFULL

AN 90:61249 USPATFULL

TI Curative and preventive method for aquarium **fish**

IN Yamabe, Akira, Tokyo, Japan  
Yoshida, Ryuichi, Tokyo, Japan

PA Japan Pet Drugs Co., Ltd., Tokyo, Japan (non-U.S. corporation)

PI US 4946690 19900807

AI US 1989-348252 19890427 (7)

DT Utility

EXNAM Primary Examiner: Robinson, Douglas W.; Assistant Examiner: Weddington, Kevin E.

LREP Cushman, Darby & Cushman

CLMN Number of Claims: 4

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 190

AB There is disclosed a method for curing ichthyophthiriasis and the like of aquarium **fish** and preventing them from being infected with the disease. By the use of stabilized chlorine dioxide.

L13 ANSWER 7 OF 9 USPATFULL

AN 82:886 USPATFULL

TI Vaccines from taxonomically similar organisms

IN Gratzek, John B., Athens, GA, United States  
 Goven, Beverly A., Bellevue, WA, United States  
 PA Dawe, Donald L., High Shoals, GA, United States  
 PI Research Corporation, New York, NY, United States (U.S. corporation)  
 US 4309416 19820105  
 AI US 1979-77269 19790920 (6)  
 DT Utility  
 EXNAM Primary Examiner: Rose, Shep K.  
 LREP Oblon, Fisher, Spivak, McClelland & Maier  
 CLMN Number of Claims: 6  
 ECL Exemplary Claim: 1  
 DRWN No Drawings  
 LN.CNT 445  
 AB A vaccine for protection against an infectious organism which cannot be readily cultured in vitro comprising an antigen derived from a taxonomically similar organism which is readily cultured in vitro. The method of preparation and the method of use are also disclosed.

L13 ANSWER 8 OF 9 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD  
 AN 1966-09614F [00] WPIDS  
 TI Treatment of **ichthyophthiriasis**.  
 DC B00  
 PA (GORD) GORDIENKO FM  
 CYC 1  
 PI SU 155596 A (196800)\*  
 PRAI SU 1962-758423 19620105  
 AB SU 155596 A UPAB: 19930831

**Ichthyophthiriasis** in fishes is treated with formaldehyde.

The method is cheap, effective, and pref. to the use of quinone or tryptaflavin.

Formalin solns. are made up in concns. ranging from 1:500 to 1:2000. The **fish** are immersed in such solns., in baths, for 3-7 mins. (less for young or weakened **fish**, or severe cases); then let out into a pond or rinsed in clean water before transport. A bath of capacity 500 l. will last for 10-15,000 **fish** and one of 1000 l for 30,000 **fish**.

L13 ANSWER 9 OF 9 JAPIO COPYRIGHT 2001 JPO  
 AN 1988-201129 JAPIO  
 TI REMEDY AND PREVENTIVE FOR AQUARIUM **FISH**  
 IN YAMABE AKIRA; YOSHIDA RYUICHI  
 PA YAMABE AKIRA, JP (IN)  
 PI JP 63201129 A 19880819 Showa  
 AI JP1987-34314 (JP62034314 Showa) 19870217  
 SO PATENT ABSTRACTS OF JAPAN, Unexamined Applications, Section: C, Sect. No. 554, Vol. 12, No. 491, P. 30 (19881221)  
 AB PURPOSE: To obtain the titled preventive applicable without causing discoloration of water and influencing water plant, by stabilizing chlorine dioxide with an alkaline aqueous solution and using the stabilized chlorine dioxide as a main component.  
 CONSTITUTION: Chlorine dioxide is stabilized in an alkaline aqueous solution to improve the storability and eliminate the explosibility. The stabilized chlorine dioxide is added to aquarium water at a concentration of 5-30ppm to effect the remedy and prevention of diseases of aquarium **fish** such as **ichthyophthiriasis**. The amount of the stabilized chlorine dioxide added to the aquarium water is preferably 15ppm because parasites of **fish** cannot be killed at a chlorine dioxide concentration of <5ppm and the remedying effect cannot be further improved by exceeding the concentration over 15ppm. The remedy for aquarium **fish** enables easy enjoyment of even aquarium **fish** under treatment.

=> s ciliated ectoparasitic protozoan

L14 0 CILIATED ECTOPARASITIC PROTOZOAN

=> s ciliat? (5a) ectoparasit? (5a) protozo?

L15 1 CILIAT? (5A) ECTOPARASIT? (5A) PROTOZO?

=> d bib ab

L15 ANSWER 1 OF 1 AGRICOLA

AN 95:13437 AGRICOLA

DN IND20445366

TI The origins of parasitism in the protists.

AU Baker, J.R.

CS Royal Society of Tropical Medicine and Hygiene, London, UK

AV DNAL (QH547.I55)

SO International journal for parasitology, Dec 1994. Vol. 24, No. 8. p. 1131-1137

Publisher: Oxford : Pergamon Press.

CODEN: IJPYBT; ISSN: 0020-7519

NTE In the special issue: The rise and decline of animal parasites / edited by

P.F.L. Boreham and I. Beveridge.

Includes references

CY England; United Kingdom

DT Article

FS Non-U.S. Imprint other than FAO

LA English

AB The origins of parasitism among the protists are, like the group itself, polyphyletic. Probably the majority of present-day parasitic forms evolved

from free-living ancestors which were ingested as part of the food of their hosts, though origins from ectoparasitic forms and via a phase of facultative parasitism are possibilities, particularly among the **ciliated protozoa** and (for **ectoparasitism**) the Kinetoplasta. Sporozoan parasites most probably developed via a stage which was ingested and became adapted to life in the host's gut. Further developments in parasitism involved deeper penetration into the host's tissues and the adoption of more than one host in the life cycle, thus avoiding entirely the potentially hazardous phase of existence outside the host.

=> s immobiliz? (5a) antigen (5a) repeat

L16 0 IMMOBILIZ? (5A) ANTIGEN (5A) REPEAT

=> s white spot disease

L17 23 WHITE SPOT DISEASE

=> s l17 and fish

L18 14 L17 AND FISH

=> s l18 and vaccin?

L19 4 L18 AND VACCIN?

=> d bib ab 1-4

L19 ANSWER 1 OF 4 USPATFULL

AN 97:56339 USPATFULL

TI Method for controlling infectious diseases in **fish** and other aquatic lifeforms in a closed culture system  
IN Sin, Y. M., Singapore, Singapore  
Ling, K. H., Singapore, Singapore  
Lam, T. J., Singapore, Singapore  
PA National University of Singapore, Singapore (non-U.S. corporation)  
PI US 5643571 19970701  
AI US 1995-466025 19950606 (8)  
RLI Continuation of Ser. No. US 1993-103054, filed on 9 Aug 1993, now abandoned which is a continuation-in-part of Ser. No. US 1992-929865, filed on 17 Aug 1992, now abandoned  
DT Utility  
EXNAM Primary Examiner: Nucker, Christine M.; Assistant Examiner: Reeves, Julie E.  
LREP Lowe, Price, LeBlanc & Becker  
CLMN Number of Claims: 18  
ECL Exemplary Claim: 1  
DRWN 2 Drawing Figure(s); 1 Drawing Page(s)  
LN.CNT 1121

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method for controlling infectious diseases in **fish** and other aquatic lifeforms, regardless of their developmental stage. The method of controlling pathogenic organisms detrimental to aquatic lifeforms includes steps of adding **fish** which are pre-immunized against one or more organisms pathogenic to **fish** to the same aquatic medium and with normal **fish**. The pre-immunized **fish** continuously and increasingly release antibodies against the pathogenic organisms into the same aquatic medium and can protect or prevent naive (normal, non-infected) **fish** or naive aquatic lifeforms from infection and are able to enhance the recovery of infected **fish** or any aquatic lifeforms infected with the same diseases.

L19 ANSWER 2 OF 4 USPTFULL

AN 82:27859 USPTFULL

TI Method for the treatment of water-living animals with health modifying agents

IN Herschler, Robert J., 3080 NW. 8th St., Camas, WA, United States 98607

PI US 4333922 19820608

AI US 1976-657228 19760211 (5)

RLI Continuation-in-part of Ser. No. US 1974-505396, filed on 12 Sep 1974, now abandoned

DT Utility

EXNAM Primary Examiner: Rosen, Sam

LREP Klaas, Bruce G.

CLMN Number of Claims: 28

ECL Exemplary Claim: 1

DRWN 4 Drawing Figure(s); 2 Drawing Page(s)

LN.CNT 1018

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A process is described for the introduction of health and/or welfare modifying agents, such as **vaccines**, to water-living animals such as **fish**. The health and/or welfare modifying agents are introduced into and across an epithelial membrane, such as the gill membrane, of the water-living animal by contacting the animal with the **vaccine** and then subjecting the animal to a negative pressure differential followed by a rapid release of the negative pressure, by contacting the epithelial membrane with a hyperosmotic concentration of a membrane permeability altering agent, either simultaneously with or prior to contacting the animal with the health and/or welfare modifying agent, or by contacting the epithelial membrane with a hyperosmotic concentration of a membrane permeability altering agent either simultaneously with or prior to contacting the animal with the health and/or welfare modifying agent followed by subjecting the animal to a negative pressure differential and then a rapid release of the negative pressure. Subjecting the animal to a negative pressure differential

followed by a rapid release of the negative pressure results in a forceful infiltration of the health and/or welfare modifying agent into the body cavities of the animal. The membrane permeability altering agent renders the epithelial membrane reversibly permeable to the health and/or welfare modifying agent. Effective membrane permeability altering agents include chemical compounds having a molecular weight of about 58 to about 61, with the most preferred membrane permeability altering agents being selected from the group consisting of acetamide, urea, sodium chloride and mixtures thereof.

L19 ANSWER 3 OF 4 USPATFULL

AN 82:886 USPATFULL

TI **Vaccines** from taxonomically similar organisms

IN Gratzek, John B., Athens, GA, United States

Goven, Beverly A., Bellevue, WA, United States

Dawe, Donald L., High Shoals, GA, United States

PA Research Corporation, New York, NY, United States (U.S. corporation)

PI US 4309416 19820105

AI US 1979-77269 19790920 (6)

DT Utility

EXNAM Primary Examiner: Rose, Shep K.

LREP Oblon, Fisher, Spivak, McClelland & Maier

CLMN Number of Claims: 6

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 445

AB A **vaccine** for protection against an infectious organism which cannot be readily cultured in vitro comprising an antigen derived from a taxonomically similar organism which is readily cultured in vitro. The method of preparation and the method of use are also disclosed.

L19 ANSWER 4 OF 4 USPATFULL

AN 78:50121 USPATFULL

TI Method for the treatment of water-living animals with health modifying agents

IN Herschler, Robert J., 3080 NW. 8th St., Camas, WA, United States 98607

PI US 4112946 19780912

AI US 1976-746933 19761202 (5)

RLI Division of Ser. No. US 1976-657228, filed on 11 Feb 1976, now Defensive

Publication No. which is a continuation-in-part of Ser. No. US 1974-505396, filed on 12 Sep 1974, now abandoned

DT Utility

EXNAM Primary Examiner: Michell, Robert W.; Assistant Examiner: Recla, Henry J.

LREP Klaas, Bruce G.; Shelton, Dennis K.

CLMN Number of Claims: 13

ECL Exemplary Claim: 1

DRWN 4 Drawing Figure(s); 2 Drawing Page(s)

LN.CNT 967

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A process is described for the introduction of health and/or welfare modifying agents, such as **vaccines**, to water-living animals such as **fish**. The health and/or welfare modifying agents are introduced into and across an epithelial membrane, such as the gill membrane, of the water-living animal by contacting the animal with the **vaccine** and then subjecting the animal to a negative pressure differential followed by a rapid release of the negative pressure, by contacting the epithelial membrane with a hyperosmotic concentration of a membrane permeability altering agent, either simultaneously with or prior to contacting the animal with the health and/or welfare modifying agent, or by contacting the epithelial membrane with a hyperosmotic

concentration of a membrane permeability altering agent either simultaneously with or prior to contacting the animal with the health and/or welfare modifying agent followed by subjecting the animal to a negative pressure differential and then a rapid release of the negative pressure. Subjecting the animal to a negative pressure differential followed by a rapid release of the negative pressure results in a forceful infiltration of the health and/or welfare modifying agent into the body cavities of the animal. The membrane permeability altering agent renders the epithelial membrane reversibly permeable to the health

and/or welfare modifying agent. Effective membrane permeability altering agents include chemical compounds having a molecular weight of about 58 to about 61, with the most preferred membrane permeability altering agents being selected from the group consisting of acetamide, urea, sodium chloride and mixtures thereof.

=> d 117 bib ab 1-20

L17 ANSWER 1 OF 23 AGRICOLA  
AN 1999:76400 AGRICOLA  
DN IND22011362  
TI Current research status of fish immunostimulants.  
AU Sakai, M.  
CS Miyazaki University, Miyazaki, Japan.  
AV DNAL (SH1.A6)  
SO Aquaculture, Mar 1, 1999. Vol. 172, No. 1/2. p. 63-92  
Publisher: Amsterdam, Elsevier  
ISSN: 0044-8486  
NTE In the special issue: Annual review of fish diseases, volume 7 / edited  
by D.J. Alderman, M. Faisal, and F.M. Hetrick.  
Includes references  
CY Netherlands  
DT Article; Law  
FS Non-U.S. Imprint other than FAO  
LA English  
AB Immunostimulants are valuable for the control of fish diseases and may be useful in fish culture. The immunostimulatory effects of glucan, chitin, lactoferrin and levamisole for fish and shrimp have been reported. Nutritional factors such as Vitamins B and C, growth hormone and prolactin have also been reported to be immunostimulators. These immunostimulants mainly facilitate the function of phagocytic cells and increase their bactericidal activities. Several immunostimulants also stimulate the natural killer cells, complement, lysozyme and antibody responses of fish. The activation of these immunological functions is associated with increased protection against infectious disease. Resistance to bacterial pathogens such as *Vibrio anguillarum*, *V. salmonicida*, *Aeromonas salmonicida*, *Yersinia ruckeri* and *Streptococcus* spp. and to parasitic infections such as **white spot disease** can be increased by administration of immunostimulants, but not to intracellular pathogens such as *Renibacterium salmoninarum* and *Pasteurella piscicida*. The most effective method of administration of immunostimulants to fish is by injection. Oral and immersion methods have also been reported, but the efficacy of these methods decreases with long-term administration. Overdoses of several immunostimulants induce immunosuppression in fish. The side effects of immunostimulants have not been well-studied. Growth-promoting activity has been noted in fish or shrimp treated with glucan or lactoferrin. Immunostimulants can overcome immune suppression by



sex hormones. Thus, the influence of immunostimulants in mature fish should be studied. In conclusion, immunostimulants can reduce the losses caused by disease in aquaculture; however, they may not be effective against all diseases. For the effective use of immunostimulants, the timing, dosages, method of administration and the physiological condition of fish need to be taken into consideration.

- L17 ANSWER 2 OF 23 AGRICOLA  
AN 1999:48501 AGRICOLA  
DN IND21990503  
TI Epidemiological aspects of shrimp viral diseases in India--a review.  
AU Shankar, K.M.; Mohan, C.V.  
CS College of Fisheries, Mangalore, India.  
AV DNAL (SH135.J68)  
SO Journal of aquaculture in the tropics, Feb 1998. Vol. 13, No. 1. p. 43-49  
Publisher: Calcutta : Oxford IBH, 1986-  
ISSN: 0970-0846  
NTE Includes references  
CY India  
DT Article  
FS Non-U.S. Imprint other than FAO  
LA English
- L17 ANSWER 3 OF 23 AGRICOLA  
AN 92:90066 AGRICOLA  
DN IND92052227  
TI Diagnosis and treatment of "Ich" or **white spot disease** in fish.  
AU Swann, L.; Fitzgerald, S.  
CS Purdue University  
AV DNAL (49.9 IN23)  
SO AS - Cooperative Extension Service, Purdue University, Jan 1991. No. 459. 2 p  
Publisher: West Lafayette, Ind. : The Service.  
DT Article  
FS Extension Service  
LA English
- L17 ANSWER 4 OF 23 AGRICOLA  
AN 91:31888 AGRICOLA  
DN IND91015292  
TI Ich: **white spot disease** (Ichthyophthirius multifiliis).  
AU MacMillan, J.R.  
CS Cooperative Extension Service, Mississippi State University  
AV DNAL (S544.3.M7M5)  
SO Information sheet - Mississippi State University, Cooperative Extension Service, Jan 1991. No. 1266. 2 p  
Publisher: Starkville, Miss. : The Service.  
DT Article  
FS Extension Service  
LA English
- L17 ANSWER 5 OF 23 AGRICOLA  
AN 87:45450 AGRICOLA  
DN IND87024828  
TI **White spot disease** of rape.  
La maladie des taches blanches du colza.  
AU Penaud, A.  
AV DNAL (464.8 P563)  
SO Phytoma, Feb 1987. No. 385. p. 23, 26 ill  
Publisher: Paris : Editions Le Carrousel.  
CODEN: PYTOAU; ISSN: 0048-4091  
DT Article

FS Non-U.S. Imprint other than FAO  
LA French

L17 ANSWER 6 OF 23 AGRICOLA  
AN 86:102214 AGRICOLA  
DN IND86077071  
TI Ich: **White spot disease** (Ichthyophthirius multifiliis).  
AU MacMillan, J.R.  
AV DNAL (S544.3.M7M5)  
SO Information sheet - Mississippi State University, Cooperative Extension Service, Dec 1984. No. 1266. 2 p ill  
Publisher: Starkville, Miss. : The Service.  
DT Article  
FS Extension Service  
LA English

L17 ANSWER 7 OF 23 AGRICOLA  
AN 84:163435 AGRICOLA  
DN IND84121073  
TI An outbreak of **white spot disease** (Ichthyophthirius multifiliis) in young fingerling rainbow trout (Salmo gairdneri Richardson).  
AU Majeed, S.K.; Gopinath, C.; Jolly, D.W.  
AV DNAL (41.8 J8292)  
SO The Journal of small animal practice., Aug 1984 Vol. 25, No. 8. p. 517-523  
ill  
Publisher: London : British Small Animal Veterinary Association.  
ISSN: 0020-4510  
NTE Includes references.  
DT Article  
FS Non-U.S. Imprint other than FAO  
LA English

L17 ANSWER 8 OF 23 AGRICOLA  
AN 81:37552 AGRICOLA  
DN IND81031706  
TI **White spot disease** of cabbage caused by Pseudocercospora capsellae Algeria.  
AU Guezlane, A.; Subramoniam, V.  
AV DNAL (421 P692)  
SO Plant protection bulletin., 1980 Vol. 28, No. 3. p. 114-115 ill  
Publisher: Rome, World Reporting Service on Plant Diseases and Pests, Food and Agriculture Organization of the United Nations.  
ISSN: 0014-5637  
NTE 2 ref.  
DT Article  
FS FAO  
LA English

L17 ANSWER 9 OF 23 USPATFULL  
AN 97:56339 USPATFULL  
TI Method for controlling infectious diseases in fish and other aquatic lifeforms in a closed culture system  
IN Sin, Y. M., Singapore, Singapore  
Ling, K. H., Singapore, Singapore  
Lam, T. J., Singapore, Singapore  
PA National University of Singapore, Singapore (non-U.S. corporation)  
PI US 5643571 19970701  
AI US 1995-466025 19950606 (8)  
RLI Continuation of Ser. No. US 1993-103054, filed on 9 Aug 1993, now abandoned which is a continuation-in-part of Ser. No. US 1992-929865, filed on 17 Aug 1992, now abandoned

DT Utility  
EXNAM Primary Examiner: Nucker, Christine M.; Assistant Examiner: Reeves, Julie E.  
LREP Lowe, Price, LeBlanc & Becker  
CLMN Number of Claims: 18  
ECL Exemplary Claim: 1  
DRWN 2 Drawing Figure(s); 1 Drawing Page(s)  
LN.CNT 1121

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method for controlling infectious diseases in fish and other aquatic lifeforms, regardless of their developmental stage. The method of controlling pathogenic organisms detrimental to aquatic lifeforms includes steps of adding fish which are pre-immunized against one or more organisms pathogenic to fish to the same aquatic medium and with normal fish. The pre-immunized fish continuously and increasingly release antibodies against the pathogenic organisms into the same aquatic medium and can protect or prevent naive (normal, non-infected) fish or naive aquatic lifeforms from infection and are able to enhance the recovery of infected fish or any aquatic lifeforms infected with the same diseases.

L17 ANSWER 10 OF 23 USPATFULL

AN 96:89036 USPATFULL  
TI Method of raising sea-water fish, display tank for sea-water fish and tank system for raising sea-water fish  
IN Yoshida, Norihiro, Aichi-ken, Japan  
Hikosaka, Tatsuo, Aichi-ken, Japan  
PA ODI Co., Ltd., Japan (non-U.S. corporation)  
PI US 5560318 19961001  
AI US 1994-363913 19941227 (8)  
PRAI JP 1993-352943 19931228  
DT Utility

EXNAM Primary Examiner: Swiatek, Robert P.; Assistant Examiner: Shaw, Elizabeth

LREP Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P.

CLMN Number of Claims: 12

ECL Exemplary Claim: 1

DRWN 13 Drawing Figure(s); 9 Drawing Page(s)

LN.CNT 750

AB A method of raising sea-water fish is performed by raising the sea-water

fish in water in a display tank which includes a device for circulating the water in the tank, a filtering material supporting plate having a sand-like filtering material containing calcium therein. In this case, the grain size of the sand-like filtering material is set between 2.5-3.5 mm. Coral sand is preferably used as the sand-like material, since it promotes the propagation of aerobic bacteria and converts ammonia and nitric acid to harmless materials and the above grain size exhibits better effect. This method can be performed by a display tank system including a tank for storing the water therein, a bottom filtering sections including the coral sand, an external filtering system disposed outside the tank, a feed-out tube for feeding the water in the tank to the external filtering system, and a mechanism for circulating the water which has been filtered by the bottom filtering section through the feed-out tube and the external filtering system into

the tank again. The feed-out tube can be provided with a bypass mechanism for feeding the water in the tank to the external filtering system directly without passing the bottom filtering section.

L17 ANSWER 11 OF 23 USPATFULL

AN 94:99693 USPATFULL

TI Antimicrobial material for breeding or keeping fish and process for producing the same

IN Sugo, Etsuko, 186-5, Ushirokikima, Gunmamachi,, Gunma-gun, Gunma-ken,,  
Japan  
PI US 5364638 19941115  
AI US 1991-693544 19910430 (7)  
PRAI JP 1991-52252 19910318  
DT Utility  
EXNAM Primary Examiner: Page, Thurman K.; Assistant Examiner: Kulkosky, Peter  
F.  
LREP Fish & Richardson  
CLMN Number of Claims: 4  
ECL Exemplary Claim: 1  
DRWN No Drawings  
LN.CNT 310

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB An antimicrobial material for fish breeding or keeping comprising a  
formed article of a pulp and/or polyolefin base material and a process  
for producing the same are disclosed, in which said formed article  
contains a functional group having a function of removing harmful ions  
combined with an antimicrobial activity. The material is produced by  
graft polymerizing a reactive monomer on a formed article of a pulp  
and/or polyolefin base material and introducing a functional group  
having a function of removing harmful ions combined with an  
antimicrobial activity into the grafted chain of the graft polymer. By  
the use of the material, fish keeping including transportation can be  
carried out stably and efficiently.

L17 ANSWER 12 OF 23 USPTFULL

AN 94:85393 USPTFULL  
TI Artificial sea-water  
IN Ushio, Kazumichi, Nishinomiya, Japan  
Kinoshita, Takaichi, Kobe, Japan  
PA Senju Pharmaceutical Co., Ltd., Osaka, Japan (non-U.S. corporation)  
PI US 5351651 19941004  
AI US 1993-83234 19930629 (8)  
PRAI JP 1992-4173123 19920630  
DT Utility  
EXNAM Primary Examiner: Swiatek, Robert P.  
LREP Millen, White, Zelano & Branigan  
CLMN Number of Claims: 13  
ECL Exemplary Claim: 9  
DRWN No Drawings  
LN.CNT 425

AB An improved composition for preparing artificial sea-water comprises an  
electrolyte mixture which, upon being dissolved in a proper amount of  
water, forms an aqueous solution which simulates natural sea-water in  
composition except that it contains one or more boron compounds within  
a  
concentration range from 0.002 to 0.05 w/v % calculated as boron. The  
pH  
stability of an artificial sea-water is improved by adding one or more  
boron compounds thereto.

L17 ANSWER 13 OF 23 USPTFULL

AN 82:27859 USPTFULL  
TI Method for the treatment of water-living animals with health modifying  
agents  
IN Herschler, Robert J., 3080 NW. 8th St., Camas, WA, United States 98607  
PI US 4333922 19820608  
AI US 1976-657228 19760211 (5)  
RLI Continuation-in-part of Ser. No. US 1974-505396, filed on 12 Sep 1974,  
now abandoned  
DT Utility  
EXNAM Primary Examiner: Rosen, Sam  
LREP Klaas, Bruce G.  
CLMN Number of Claims: 28

ECL Exemplary Claim: 1  
DRWN 4 Drawing Figure(s); 2 Drawing Page(s)  
LN.CNT 1018  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A process is described for the introduction of health and/or welfare modifying agents, such as vaccines, to water-living animals such as fish. The health and/or welfare modifying agents are introduced into

and across an epithelial membrane, such as the gill membrane, of the water-living animal by contacting the animal with the vaccine and then subjecting the animal to a negative pressure differential followed by a rapid release of the negative pressure, by contacting the epithelial membrane with a hyperosmotic concentration of a membrane permeability altering agent, either simultaneously with or prior to contacting the animal with the health and/or welfare modifying agent, or by contacting the epithelial membrane with a hyperosmotic concentration of a membrane permeability altering agent either simultaneously with or prior to contacting the animal with the health and/or welfare modifying agent followed by subjecting the animal to a negative pressure differential and then a rapid release of the negative pressure. Subjecting the

animal to a negative pressure differential followed by a rapid release of the negative pressure results in a forceful infiltration of the health and/or welfare modifying agent into the body cavities of the animal.

The membrane permeability altering agent renders the epithelial membrane reversibly permeable to the health and/or welfare modifying agent. Effective membrane permeability altering agents include chemical compounds having a molecular weight of about 58 to about 61, with the most preferred membrane permeability altering agents being selected

from the group consisting of acetamide, urea, sodium chloride and mixtures thereof.

L17 ANSWER 14 OF 23 USPATFULL

AN 82:886 USPATFULL

TI Vaccines from taxonomically similar organisms

IN Gratzek, John B., Athens, GA, United States

Goven, Beverly A., Bellevue, WA, United States

Dawe, Donald L., High Shoals, GA, United States

PA Research Corporation, New York, NY, United States (U.S. corporation)

PI US 4309416 19820105

AI US 1979-77269 19790920 (6)

DT Utility

EXNAM Primary Examiner: Rose, Shep K.

LREP Oblon, Fisher, Spivak, McClelland & Maier

CLMN Number of Claims: 6

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 445

AB A vaccine for protection against an infectious organism which cannot be readily cultured in vitro comprising an antigen derived from a taxonomically similar organism which is readily cultured in vitro. The method of preparation and the method of use are also disclosed.

L17 ANSWER 15 OF 23 USPATFULL

AN 78:50121 USPATFULL

TI Method for the treatment of water-living animals with health modifying agents

IN Herschler, Robert J., 3080 NW. 8th St., Camas, WA, United States 98607

PI US 4112946 19780912

AI US 1976-746933 19761202 (5)

RLI Division of Ser. No. US 1976-657228, filed on 11 Feb 1976, now

Defensive

Publication No. which is a continuation-in-part of Ser. No. US

1974-505396, filed on 12 Sep 1974, now abandoned  
DT Utility  
EXNAM Primary Examiner: Michell, Robert W.; Assistant Examiner: Recla, Henry J.  
LREP Klaas, Bruce G.; Shelton, Dennis K.  
CLMN Number of Claims: 13  
ECL Exemplary Claim: 1  
DRWN 4 Drawing Figure(s); 2 Drawing Page(s)  
LN.CNT 967

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A process is described for the introduction of health and/or welfare modifying agents, such as vaccines, to water-living animals such as fish. The health and/or welfare modifying agents are introduced into

and across an epithelial membrane, such as the gill membrane, of the water-living animal by contacting the animal with the vaccine and then subjecting the animal to a negative pressure differential followed by a rapid release of the negative pressure, by contacting the epithelial membrane with a hyperosmotic concentration of a membrane permeability altering agent, either simultaneously with or prior to contacting the animal with the health and/or welfare modifying agent, or by contacting the epithelial membrane with a hyperosmotic concentration of a membrane permeability altering agent either simultaneously with or prior to contacting the animal with the health and/or welfare modifying agent followed by subjecting the animal to a negative pressure differential and then a rapid release of the negative pressure. Subjecting the

animal to a negative pressure differential followed by a rapid release of the negative pressure results in a forceful infiltration of the health and/or welfare modifying agent into the body cavities of the animal.

The membrane permeability altering agent renders the epithelial membrane reversibly permeable to the health and/or welfare modifying agent. Effective membrane permeability altering agents include chemical compounds having a molecular weight of about 58 to about 61, with the most preferred membrane permeability altering agents being selected

from the group consisting of acetamide, urea, sodium chloride and mixtures thereof.

L17 ANSWER 16 OF 23 USPATFULL

AN 77:55218 USPATFULL

TI Medical product combining antimicrobial, antiparasitic and vitamin complex

IN Frumoff, Lew, D-145 Monaco Way, Delray Beach, FL, United States 33446

PI US 4053593 19771011

AI US 1975-635610 19751126 (5)

DT Utility

EXNAM Primary Examiner: Rosen, Sam

LREP Helfgott, Samson

CLMN Number of Claims: 12

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 605

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB An improved medical product which can be used in preventing and curing diseases, especially in fish. The medical product includes an antimicrobial agent, a chemically compatible antiparasitic agent and a chemically compatible vitamin complex. In one embodiment of the invention, the antimicrobial agent includes a nitrofurantoin complex containing nitrofurantoin and furazolidone; the antiparasitic agent includes metronidazole, and the vitamin complex includes folic acid, riboflavin, pyridoxine HCl, cyanocobalamin, and thiamin mononitrate.

L17 ANSWER 17 OF 23 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD

AN 2001-065432 [08] WPIDS  
DNC C2001-018520  
TI New parasite prevention and treating agent containing capsaicin.  
DC B04 C03 D13  
PA (DAIW) DAIWA KASEI KK; (NICH-N) NICHIIWA SANGYO KK  
CYC 1

PI JP 2000281568 A 20001010 (200108)\* 7p  
ADT JP 2000281568 A JP 1999-129043 19990330  
PRAI JP 1999-129043 19990330

AB JP2000281568 A UPAB: 20010207

NOVELTY - New prevention and treating agent against parasite of useful marine animals comprises capsaicin and the composition containing it as active ingredient.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

(i) prevention and treatment of parasite of useful marine animals by administration of capsaicin and capsaicin containing composition to useful marine animals; and

(ii) prevention and treatment of parasite of useful marine animals by

administration of capsaicin with an amount ranging from 0.001 to 100 mg/kg/day, preferably from 0.01 to 1 mg/kg/day.

ACTIVITY - Antiparasitic.

MECHANISM OF ACTION - None given.

USE - The agent is effective for the prevention and treatment of parasite of useful marine animals.

ADVANTAGE - The agent and the method improve the growth rate of useful marine animals.  
Dwg.0/0

L17 ANSWER 18 OF 23 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD  
AN 2000-587582 [55] WPIDS

DNC C2000-175331

TI Stimulating immune system of aquatic animals comprises administering supplement comprising animal plasma.

DC B04 C03

IN TAKAHASHI, Y

PA (AMPR-N) AMERICAN PROTEIN CORP

CYC 90

PI WO 2000056166 A1 20000928 (200055)\* EN 20p

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL  
OA PT SD SE SL SZ TZ UG ZW

W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES  
FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS  
LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL  
TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

AU 2000037689 A 20001009 (200103)

ADT WO 2000056166 A1 WO 2000-US7611 20000322; AU 2000037689 A AU 2000-37689 20000322

FDT AU 2000037689 A Based on WO 200056166

PRAI US 1999-125700 19990323

AB WO 200056166 A UPAB: 20001102

NOVELTY - The immune system of aquatic animals is stimulated by administering a supplement comprising animal plasma.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(1) production of the supplement which comprises separating the plasma from the whole blood of animals, concentrating the plasma and drying the obtained concentrated product and

(2) a plasma feed product comprising aquatic animal feed and animal plasma.

ACTIVITY - Immunostimulant.

USE - Used for preventing disease, particularly white patch or whit spot disease in aquatic animals, particularly shrimps and grouper.

4% Appetitein (granular animal plasma) was fed as a supplement to the

diet of shrimps infected with **white spot disease** virus. Results showed that shrimps fed no supplement experienced complete mortality after 10 days whereas 11/15 shrimps fed with the supplement survived.

ADVANTAGE - The survivability of animals is increased when challenged with diseases, including those caused by the white spot baculo virus. The method does not rely on the use of diagnostic techniques, including hybridization tests, in situ hybridization tests and PCR amplification tests and does not require the use of antibiotics or other medications. The method is easy and economical and prevents future outbreaks of disease.  
Dwg.0/5

L17 ANSWER 19 OF 23 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD  
AN 1997-350187 [32] WPIDS  
DNC C1997-113006

TI Controlling infectious diseases in aquatic life-forms - by adding immunised fish, which can release antibodies against pathogenic organisms,

to aquatic media containing the aquatic life-forms.

DC B04 C06 D16

IN LAM, T J; LING, K H; SIN, Y M

PA (UYSI-N) UNIV SINGAPORE NAT

CYC 1

PI US 5643571 A 19970701 (199732)\* 14p

ADT US 5643571 A CIP of US 1992-929865 19920817, Cont of US 1993-103054 19930809, US 1995-466025 19950606

PRAI US 1993-103054 19930809; US 1992-929865 19920817; US 1995-466025 19950606

AB US 5643571 A UPAB: 19970806

Controlling at least 1 pathogenic microorganism (selected from protozoan parasites and bacteria) which are detrimental to aquatic lifeforms (selected from fish, crustaceans, molluscs and echinoderms), comprises:

(a) adding fish immunised against at least 1 of the pathogenic organisms to a culture system comprising an aquatic medium; (b) permitting the immunised fish to release antibodies against the pathogenic organisms

into

the aquatic medium; (c) adding the aquatic lifeforms to the aquatic medium

in which the aquatic lifeforms are to be treated or protected, and (d) allowing the antibodies to immuno-react with the pathogenic organisms, thus controlling the pathogenic organisms.

USE - The method may be used for controlling diseases (such as **white-spot disease**, velvet disease, slimy skin disease and fin- and gill-rot diseases) caused by pathogenic organisms such as protozoa, bacteria, viruses or fungi (claimed).

ADVANTAGE - The process is a practical and reliable method for controlling infectious diseases in fish and other aquatic lifeforms, regardless of their developmental stage.  
Dwg.1/2

L17 ANSWER 20 OF 23 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD  
AN 1994-111950 [14] WPIDS  
DNC C1994-051574

TI Stimulant of natural environment - is composed of e.g. distilled wood vinegar, cyclo-dextrin, garlic wood vinegar extracts, etc., used on soil to stimulate antimicrobial activities.

DC C03

PA (GIFU-N) GIFU SEIBUTSU KENKYUSHO YG

CYC 1

PI JP 06056617 A 19940301 (199414)\* 5p

ADT JP 06056617 A JP 1990-418589 19901226

PRAI JP 1990-418589 19901226

AB JP 06056617 A UPAB: 19940524



Stimulant mixt. of natural environment is composed of distilled or purified wood vinegar, cyclodextrin, garlic wood vinegar extract, 300 ppm soln. of an organic Ge cpd. and 3-8% AcOH at random ratios, opt. contg. chicken chitosan. Also claimed is process for the prodn.. (A): In 100 L of distilled or purified wood vinegar, 2-5 kg of garlic is soaked for more than 10 days. (B)): In 92-97 L of pasteurised tap water, 3-8 L of AcOH

and 3-8 kg of chicken chitosan are mixed and stirred for one day. (C): In 100 L of pasteurised water, 10 kg of cyclodextrin is added and stirred for three hrs.. Soln. (A) is mixed with 700 L of wood vinegar and stirred for on hrs., then two L of 300 ppm soln. of an organic Ge cpd.. The soln. (C) is added and stirred for one hr., then, soln. (B) is mixed and stirred

for three hrs.. The resultant mixed soln. is suitably diluted and dispersed.

USE/ADVANTAGE - Used on soil and water conditioner to stimulate antimicrobial and insecticidal activities and growth of plants and fish.

In an example, in 47 L of an aquarium, the resultant soln. was added up to 21,000 ppm, and five goldfish infected with scale protrusion, **white spot disease** and mouth rot, and water

hyacinth were released. After eight days, fish disease except for mouth rot were eradicated and water hyacinth growth well. While no goldfish survived n the control gp..

Dwg.0/0